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| 10/805,094  | 03/19/2004  | William S. Sykes     | 32063.00.0002                | 7705             |
| 30011   | 7590        | 10/19/2006           |                              |                  |
| LIEBERMAN & BRANDSDORFER, LLC<br>802 STILL CREEK LANE<br>GAITHERSBURG, MD 20878 |             |                      |                              |                  |
|   |             |                      | EXAMINER<br>KASTLER, SCOTT R |                  |
|   |             |                      | ART UNIT<br>1742             | PAPER NUMBER     |

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/805,094

Applicant(s)

SYKES, WILLIAM S.

Examiner

Scott Kastler

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 52-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 52,53,55-73,75-77 and 79 is/are rejected.
- 7) ☒ Claim(s) 54,74 and 78 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/27/2006</u> | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

Claims 60, 62, 63 and 70 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claims recite only limitations dealing with the manner in which the claimed apparatus is to be employed, and it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114 and 2115.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 55, 61, 65, 71 and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The above claims each recite that the “cutting torch tip matches a specific combustible gas utilized” without any indication as to how, or in what manner any particular cutting torch tip is matched to any particular combustible gas, thereby rendering the scope of the above claims unascertainable.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1742

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 52, 55-63 and 69-72, 75, 76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Jenkins. Smith teaches a metal cutting apparatus and method of metal cutting including a cutting torch (B), both a preheating mixture of oxygen and combustible gas at any desired pressure (see page 2 lines 70-74 for example) and a source of liquid oxygen for cutting the metal (through line 16), where the liquid oxygen is supplied at between 150 and 220 psi (see the table at page 3 for example, which teaches supplying the cutting oxygen at 174 psi) and including a heater (28) and insulated line (17, 16) which would ensure that the liquid oxygen does not freeze in the hose (16) and regulators (14 and 15) thereby showing all aspects of the above claims except the use of a two part cutting torch tip, although such a tip would be allowed by the broad disclosure of Smith. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines 43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties would also be desired by Smith, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip (B) required by Smith, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the

Art Unit: 1742

use of any type of gas in the above apparatus claims cannot be relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Smith in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims.

Claims 52, 55-63 and 69-72, 75, 76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lotz et al in view of Jenkins. Lotz et al teaches a metal cutting apparatus and method of metal cutting including a cutting torch (5,6), both a preheating mixture of oxygen and combustible gas at any desired pressure(see the embodiment of figure 1 for example) and a source of liquid oxygen for cutting the metal (1), where the liquid oxygen is supplied at between 150 and 220 psi (see the table 1 at col. 3 for example) and including a heater (2) which would ensure that the liquid oxygen does not freeze in the hose and regulators (3, 4) thereby showing all aspects of the above claims thereby showing all aspects of the above claims except the use of a two part cutting torch. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines 43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties would also be desired by Lotz et al, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip (5,6) required by Lotz et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of

Art Unit: 1742

particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the use of any type of gas in the above apparatus claims cannot be relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Lotz et al in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims.

Claims 52, 55-63 and 69-72, 75, 76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babcock in view of Jenkins. Babcock teaches a metal cutting apparatus and method of metal cutting including a cutting torch (see the embodiments of figures 3 and 4 for example), including both a preheating mixture of oxygen and combustible gas (from lines 34 and 38 example) and a source of liquid oxygen for cutting the metal (through line 32), where the liquid oxygen is supplied through hose 21 and including a heater (19, 20) which would ensure that the liquid oxygen does not freeze in the hose (21) and regulator (17, 18) thereby showing all aspects of the above claims except the use of a two part cutting torch tip. Jenkins teaches that at the time the invention was made, two port tips for cutting torches supplying both oxygen and a combustible gas (see page 1, column 2, lines 43-55 for example) for cutting metal workpieces were known in the art and provide improved cutting properties when compared to other types of cutting tips (see page 1 column 1, lines 45-55 for example). Because improved cutting properties

Art Unit: 1742

would also be desired by Babcock, which allows for the use of any desired type of cutting tip, motivation to employ the improved tip taught by Jenkins, as the cutting tip required by Babcock, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made. With respect to the use of particular combustible gases in the above apparatus claims, it has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114, 2115. In the instant case the use of any type of gas in the above apparatus claims cannot be relied upon to fairly further limit a claim to the apparatus itself. With respect to the cutting speeds instantly recited, since the cutting speed would also depend on the thickness and type of material being cut, which is not recited or claimed, the method an apparatus described by Babcock in view of Jenkins would meet the recited cutting speed for some type and thickness of material and therefore meet the requirements of the above claims.

Claims 52, 53, 55-73, 75-77 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Lotz et al in view of Jenkins as applied to claim 52 above, further in view of Oxygen Cutting Operations, Chapter 4. As applied to claim 52 above, either of Smith or Lotz et al in view of Jenkins show all aspects of the above claims except the specific use of either MAPP gas as the combustion gas, although both of Smith (see page 2, lines 70-75) Lotz et al (the heating gas) allow for the use of any desired combustible gas. Oxygen Cutting Operations, Chapter 4 teaches that MAPP gas for use in a two part cutting tip in combination with oxygen was a well known combustion gas and a desirable substitute for acetylene as a

Art Unit: 1742

cutting gas in metal cutting operations at the time the invention was made. Because neither of Smith or Lotz et al require any specific combustion gas, motivation to employ any equivalent well known combustion gas, including the MAPP gas taught by Oxygen Cutting Operations, Chapter 4, as the combustion, or heating gas required by either of Smith or Lotz et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

#### ***Allowable Subject Matter***

Claims 54, 74, and 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed on 9/6/2006 have been fully considered but they are not persuasive. Applicant's argument that there is no motivation to employ the tip of Jenkins in the systems described by any of Babcock, Lotz et al or Smith is not persuasive. As stated in the above rejections, Jenkins states that the disclosed two part cutting torch tip is intended as an improvement over previous one part tips of the type employed by each of Babcock, Lotz et al or Smith.

Applicant's further argument that none of Jenkins, Babcock, Smith or Lotz et al recite the use of a combustible gas at the instantly recited pressures (between 15 and about 80 psi for example) and since all of these references are restricted to the use of acetylene which becomes



Art Unit: 1742

unstable at these pressures, the use of these pressures would not be obvious from the applied references is not persuasive. None of the above references are restricted to the use of acetylene as the combustion gas and none of the above references restrict the use of any desired gas pressure. Simply because a reference may recite a gas as a combustible gas in an example does not limit what that reference fairly teaches to that specific example. It has been well settled that a reference is not limited to its preferred embodiments as to what it fairly teaches. See MPEP 2123.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

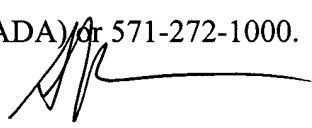
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Scott Kastler  
Primary Examiner  
Art Unit 1742

sk